

# *Understanding Deflationary Trends in China: Internal and External Factors Analysis*

Wenbo Kang<sup>1,a,\*</sup>

<sup>1</sup>*UCL School of Slavonic and East European Studies, University College London, London, United Kingdom*

*a. yjmswka@ucl.ac.uk*

*\*corresponding author*

**Abstract:** This paper investigates the recent deflationary trend observed in China, exploring its underlying causes from both internal and external perspectives. Since the 1970s, China has undergone significant economic reforms, embraced market principles and experienced a substantial expansion in its money supply. Despite expectations of inflation due to the substantial money supply relative to GDP, China has experienced a period of low or negative inflation rates since April 2023. This study examines potential factors contributing to this deflationary period, including exchange rate fluctuations, monetary policy dynamics, economic structural shifts, and external shocks. Furthermore, the paper evaluates the development of transmission routes of monetary policy and possible impacts on the responsiveness of price level to money supply, particularly within the context of China's evolving financial system. Additionally, it analyses shifts in the key drivers of the Chinese economy—investment, net exports, and consumption—and their role in exacerbating deflationary pressures. The study extends its analysis to February 2024, observing potential signs of a transition away from deflation. It emphasizes the risks associated with deflation and the Chinese government's efforts to balance inflation targets with economic stability and employment objectives, particularly in light of challenges in the real estate sector.

**Keywords:** Money supply, inflation rate, economic growth, structural change, real estate

## 1. Introduction

Since the 1970s, China has gradually introduced the market as a character into its economy, followed by mass currency supply: by the end of 2023, China's M2 has increased 1.19 times compared with the end of 2013, equal to 2.32 times its Gross Domestic Product. The enormous size of the money supply compared with GDP based on long-term relationships built on QTM has raised concerns about a drastic rise in the inflation rate. Nevertheless, we have observed a period of low (0.1%) and even negative inflation rates since April 2023, which is unseen from 1998 to 2002 and during the global financial crisis. In nearly three decades, the causes of deflations in China have varied due to developing economic structures, policy transmission mechanisms and external shocks. This essay will try to elaborate on the possible causes of the recent deflations by aspects of exchange rate, monetary policy, economic and financial structure, and carry out the possible factors that contribute to such deflation.

## 2. Concept Explanation

Deflation, a phenomenon marked by a widespread decline in prices, stands in stark contrast to inflation's upward price trends. This condition often leads to diminished consumer spending and can signal an economic downturn. One of the principal tools for gauging deflation that will be used in this paper is the Consumer Price Index (CPI), an index that contains a basket of goods and services to measure the change in the general price level. In the past century, researchers have identified several factors that could cause changes in the general price level. The Phillips curve, for instance, is a theorem that suggests that lower unemployment levels within an economy could result in higher rates of inflation, and vice versa. Within a globalized economy, there could be other factors that affect the domestic price level, known as imported deflation, which occurs when a surge of lower-priced imported goods drives down the domestic price level. There are mainly two causes for such deflation: either having an appreciating currency or foreign goods and services having a lower cost of production. Moreover, consumption patterns are significantly influenced by wealth and consumer expectations. The wealth effect theorizes an increase in spending as asset values rise. Furthermore, theories, such as the directly proportional relationship between the price level and the money supply, which is known as the Quantity Theory of Money. While traditional QTM suggests that price levels are directly proportional to the money supply in both the short run and long run [1], further theory development suggests the uncertainty of such a relationship between two factors in the short run, yet they will be fully reflected in the long run [2].

The rapid development of China in past decades has drawn further attention to the dynamic of money supply and price level. Although empirical evidence proves the long-term relationship suggested by the QTM [3], the short-term effects of changing money supply remain uncertain: For example, Shuai found that monetary growth in China harmed inflation over 1993-2001 [4]. As China's deflation happened again around 2008, researchers' focus changed to the dynamic of such a relationship [5]. The latter research examined the effects M0, M1 and M2 caused on inflation and deflation from January 1991 to June 2014 [3], which covered two deflation periods out of three, suggesting the relative ubiquity of its conclusion: The effects of different money supplies on different period varies, which suggests a dynamic development of their relations.

## 3. Development of Financial Structure

The level of maturity of the financial system is crucial to the effectiveness of monetary policy since it is typically viewed as inversely proportional to the level of financial frictions: for developed countries, well-developed financial markets make financial frictions have few influences on the transmission of monetary policy [6], while developing countries with the underdeveloped financial system were suffered from this [7]. Financial frictions not only imply the presence of transmission channels for both interest rates and credit but also underscore their existence: As the financial system develops, which indicates more transmission through the interest rate channel, financial friction will decrease, whereas the impact of the credit channel operates in the opposite direction [8]. Xu's study, which is based on empirical findings, illustrates that the overall improvement in China's development in financial sectors enhances the effectiveness of monetary policy. Consequently, this facilitates a more seamless transmission of monetary policy shocks within the financial market [9]. Further investigations reveal that as of 2019, the interest rate channel's contribution to China's monetary policy transmission has diminished to 31%, while the credit channel, although slightly reduced, remains predominant at 42%. Meanwhile, the asset price channel has significantly strengthened, accounting for 20% of the transmission mechanism. This shift is primarily attributed to the rapid expansion of household wealth resulting from China's booming stock and real estate markets [10].

#### 4. Influence of the Real estate Industry and External Shocks

Before the onset of the current deflation, there were profound changes in the three major components that drive the Chinese economy, namely, investment, net exports and consumption. First, there was a slowdown in the Real estate industry. Being the primary catalyst for investment and economic expansion over recent decades, it drew substantial credit and spawned numerous financial derivatives owing to its anticipated high rate of return amidst declining economic growth rates and corporate profitability. However, its large price fluctuations have hurt financial stability, crowding out consumption and increasing financial leverage for the Chinese economy [11]. Secondly, the slowdown of the Real estate industry affects local government revenues and thus investment. With the slowdown of urbanization and the consideration of the negative impacts mentioned above, land finance becomes unsustainable: in developed regions with higher output per capita, such as Beijing and Shanghai, the dependence on land finance is not obvious, while other regions are different; as the differences of economic development in different regions are further widened by factors such as resource endowment, the siphoning phenomenon of developed regions on less developed regions becomes more obvious, making its Dependence on unsustainable land finance [12]. Finally, it is the pressure on China's import and export trade. Although the rise of the high-end manufacturing industry has played a significant role in the government's plan, the existing low-end manufacturing industry in Vietnam, India and other emerging economies, while the high-end manufacturing industry is facing trade protection measures. At the same time, as a country that is relatively poor in natural resources, its inflationary prices are mostly affected by imported raw materials, and the link between the two has been demonstrated in a variety of literature [13]. All three trends, overlaid with the 2020 pandemic, together contribute to the deflation of the July 2023 to January 2024 period.

During the pandemic, China emerged relatively quickly from the forced disruption of economic activity compared to other countries, thanks to a firm quarantine policy. While the GDP growth was noteworthy, it fell short of the high growth rates experienced in previous periods. At the same time, China has adopted a more cautious expansionary monetary policy to promote economic recovery than other advanced economies of the same period: either out of traditional inflationary concerns or to store up policy tools for possible next financial risks. Therefore, the growth in money supply has been modest: the frequent use of monetary policy over the past few years has reduced its marginal utility, making it increasingly difficult to regulate output and consumption [14]. on the other hand, because the Troika's low pace of development has been difficult as a structural problem in making it possible to carry out a large-scale consumption boost while maintaining moderate inflation. This, together with the fact that fiscal policy has not been as strong as it was in 2008, has led to a significant decline in the causes of inflation on the government side. Nonetheless, the strong trend in exports has improved consumer and business expectations to some extent, and the economy is still generally growing at a relatively high rate. However, as the outbreak began to spread again in the country, measures such as closure and control further increased consumer insecurity, and the forced cessation of economic activity in economic centers such as Shanghai added pressure on economic growth in 2022. However, imported inflation, particularly the spike in energy prices and commodities caused by the Russia-Ukraine conflict, has added to inflationary pressures to some extent [15]. In addition to this, fluctuations in the exchange rate can cause changes in import prices, which are then transmitted to a country's Producer Price Index (PPI) and CPI, and empirical evidence proves that the appreciation of the renminbi exacerbates deflationary pressures in China [13]. However, it is worth noting that the RMB exchange rate appreciates in 2020 and 2021 due to strong exports, and depreciates in 2022-2023 due to the FED's interest rate hike and other reasons. As net exports continue to expand will generate huge foreign exchange reserves, leading to the central bank passively creating more money at the same time, which leads to a temporary decline in aggregate domestic supply in the short run

[16]. However, the setback in the development of the Real estate industry as a crucial part of China's finance and economy turned itself into a reservoir, which accumulated money supply within it but was not transmitted into the circulation of other economic activities. On the one hand, the CPI in 2023 was affected by the decline in food prices, especially pork prices due to overproduction; on the other hand, the continued decline in international oil prices and the lack of demand for some industrial goods made the consumer prices of industrial consumer goods and services stabilize.

Moving into February 2024, the CPI recorded a 0.8% increase, reversing the negative or near 0% since April 2023. Whether the situation marks the break of the deflationary spiral, the vicious cycle of economies in which inflation decreases or even transforms into deflation, leading to a sustained recession. The Commodity Price Index (CBPI) stood at 111.4 in February, a small drop of 0.7% from the previous month and 7.5% year-on-year; and the RMB-dollar exchange rate stabilized at approximately 1:0.14 from approximately 1:0.15 at the same time a year ago, happening depreciation; the larger increase in inflation in February was due to seasonal factors such as rising food prices, (up 7.3% year-on-year). It is worth noting that the trade surplus continued to expand in January and February, and high-end manufacturing product exports continued to increase, reflecting the effectiveness of industrial upgrading. In the Real estate industry, there are expansionary plans for fiscal and monetary policy. Specifically, the low importance of imported deflation and the unsustainability of food price increases due to seasonal factors such as extreme weather and the Chinese New Year has made it difficult for consumer expectations to change in the short term, and it is not yet known whether deflation will continue.

## 5. Conclusion

This paper explores the possible causes of China's recent deflation from both internal and external factors. The dangers of deflation for the economy are clear, as the 2024 Chinese government work report sets the inflation target at around 3% and indicates that the target for new urban employment is set at "more than 12 million people", with an emphasis on "strengthening support for enterprises in tertiary sectors". It also emphasizes "strengthening support for enterprises in industries with large employment capacity", indicating the importance that the Government attaches to the employment of residents and the development of the service sector. However, the cooling of the Real estate industry has not reversed the trend, and the use of monetary policy needs to be controlled to meet the inflation target without generating excessive inflation. Nonetheless, this paper does not model the direct relationship, and a more accurate relationship would need to be determined through precise testing.

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